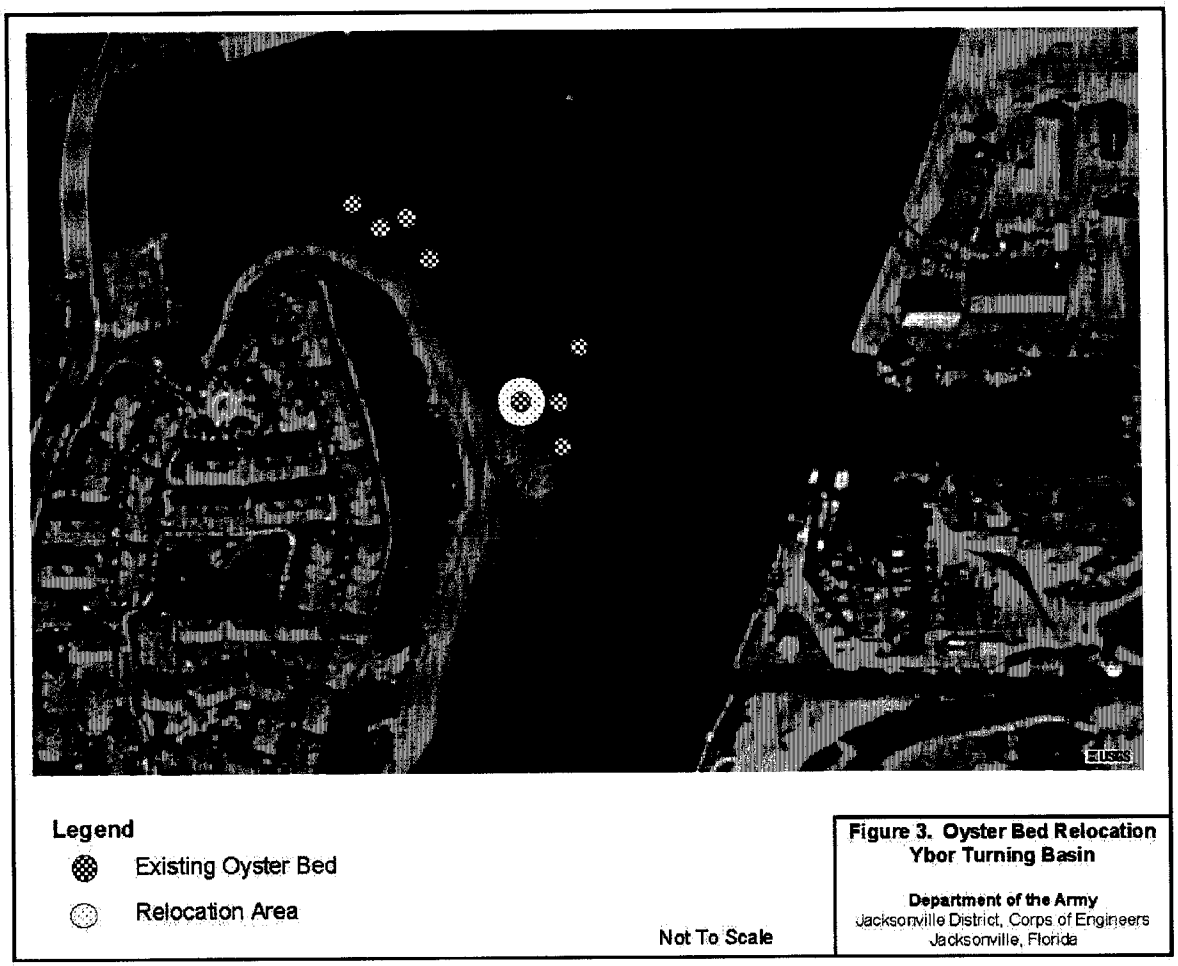
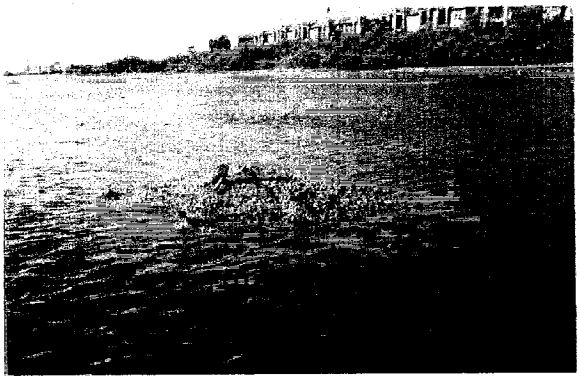


Figure 5, Oyster Bed Relocation

beds are known to exist on the shelf proposed for dredging to expand the Ybor Channel Turning Basin. A survey conducted by the Corps (unpublished) confirmed the location and area of eight oyster beds on the shelf. The total area of the beds is just over 1,120 square feet, with the largest covering about 706 square feet.



Photograph 2, Oyster beds

e. Migratory Birds. Gulls, terns, sandpipers, plovers, stilts, skimmers and oystercatchers are known to inhabit the CMDA-3D. Other wading birds such as herons, egrets and ibises use the interior wetland areas. CMDA-2D is also inhabited by the same bird species, but there are more black skimmers and oystercatchers than on 3D. Nesting by these species is protected by the Migratory Bird Treaty Act. In addition, other National Wildlife Refuges, Pinellas, Passage Key and Egmont Key, also are known migratory nesting areas for numerous species of birds (EPA, 1994).

3.8.3 Social.

a. Historic Properties. An archival and literature review, including a review of the current National Register of Historic Places and listing and consultation with the Florida State Historic Preservation Officer (SHPO), was conducted to determine if significant cultural resources are present in the project area. There are no recorded sites in the project area. However, a remote sensing surveys were conducted in Ybor and Garrison Channels. One potentially significant anomaly was investigate but determined to not be significant. This determination is being coordinated with the SHPO.

b. Recreation. The dredging area is located in the Tampa Harbor navigation channel. Large recreational vessels use this channel to transit to and from various mooring facilities throughout the Bay and the Gulf of Mexico or other recreational parts of the Bay. The Upland DMMA's are used for birdwatching, fishing and picnicking.

c. Aesthetics. The aesthetics of the dredging area is within a commercial navigation area, which see large ocean going cargo vessels, fishing vessels and large recreation craft transiting the area.

which see large ocean going cargo vessels, fishing vessels and large recreation craft transiting the area.

3.8.4 Economics.

a. Navigation. The navigation channel allows transportation of international and domestic cargo to and from the Port of Tampa. This provides long-term economic stimulus to the economy of Tampa metropolitan area and the generation of revenues from the sale of goods and services to public.

b. Economics. The activities that originally justified this project in Tampa Harbor were a tonnage moved of 268,206 in 1898. This is the first available information in the District Office records for Tampa Harbor. The first breakdown of cargo available for Tampa Harbor is in 1913. Principle items received were coal, sand, shell, cement, brick, Havana Tobacco and miscellaneous merchandise. Major items shipped were phosphate, lumber and miscellaneous freight. The total tonnage for 1913 was 2,222,873 tons. This represented increase of 825 percent in just 15 years from 1880. This phenomenal increase had been attributed to channel deepening in the harbor. Since the deepening of the entrance no maintenance dredging has been conducted and sedimentation forcing vessels to light load in the upper channel. This required that the vessels either add additional freight at another port or load from a lighter (a barge) further down the harbor. The data used to justify the Federal project in Tampa was taken from 1971. Tampa Harbor was the 8th largest port in the United States, handling 36,000,000 tons of commerce almost equally divided between inbound and outbound. The major commodities requiring deeper channels are phosphates, petroleum products, and sulfur. Phosphate products were the major beneficiaries of deepening the channels. There were three major phosphate terminals at Tampa where vessels could not be fully loaded because of restrictive channel depths. In that year, there were some 230 outbound vessels of which about 160 could have taken on more cargo if not restricted by draft. Looking at economic information for Tampa Harbor over the last five years, tonnage and growth rates appear to have stayed reasonably steady. The numbers have varied but while being down one year they recovered in the next. In 1994 Tampa handled about 49 million tons of cargo and commercial passenger transport increased about 50 percent.

4. ENVIRONMENTAL CONSEQUENCES.

4.1 INTRODUCTION.

This section describes the probable consequences of implementing each alternative on selected environmental resources. These resources are directly linked to the relevant issues listed in Section 1.4 that have driven and focus the environmental analysis. The following includes anticipated changes to the existing environment including direct and indirect impacts, irreversible and irretrievable commitment of resources, unavoidable effects and cumulative impacts.

4.1.1 Cumulative Impacts.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7).

4.1.2 Irreversible and Irretrievable Commitment of Resources.

a. Irreversible. An irreversible commitment of resources is one in which the ability to use and/or enjoy the resource is lost forever. One example of an irreversible commitment might be the mining of a mineral resource.

b. Irretrievable. An irretrievable commitment of resources is one in which, due to decisions to manage the resource for another purpose; opportunities to use or enjoy the resource as they presently exist are lost for a period of time. An example of an irretrievable loss might be where a type of vegetation is lost due to road construction.

4.2 NO ACTION ALTERNATIVE

4.2.1 Physical.

a. Water quality. The water quality of the area would remain the same.

4.2.2 Biological

a. Benthos. There would be no adverse impacts on benthic organisms.

b. Manatees. There would be no adverse impacts on manatees.

c. Fisheries. There would be no impact on fisheries in the Bay from this alternative.

d. Shellfish. There would be no adverse impacts on shellfish in the project area.

e. Migratory Birds. There would be no adverse impacts on migratory birds from this alternative.

4.2.3 Social.

a. Historic Properties. There would be no affect on historic properties included in or eligible for inclusion in the National Register of Historic Places.

b. Recreation. There would be a minor adverse impact on cruise ship operation in the turning

basin from the limited turning basin and depth.

c. Aesthetics. There would be no adverse impact from this alternative.

4.2.4 Economic.

a. Navigation. There would be a long-term minor adverse impact on safety and efficient operation of this area of the Port from the limited turning basin and the future mooring of cruise ships in the turning basin area.

b. Economics. There would be a medium, long-term loss of revenues from the port operation and mooring space in the existing turning basin. Ships currently cannot efficiently be handled in this area because of the limited turning basin size.

4.2.5 Cumulative effects.

If this action was considered in conjunction with other similar projects and similar No Actions, there would be no cumulative adverse impact.

4.2.6 Unavoidable effects.

There would be no unavoidable effects from this alternative.

4.2.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.3 CONSTRUCTION AND CMDA-2D PLACEMENT

4.3.1 Physical.

a. Water quality. There would be a localized increase in turbidity at the dredging site. This impact would meet State water quality standards. The effluent from the upland DMMA's would be relatively clean and meet NPDES standards for dredged material management..

4.3.2 Biological

a. Benthos. There would be a minor impact on benthic organisms within the dredging area. These organisms would be eliminated and moved to an upland area.

b. Manatees. The auxiliary vessels associated with the dredging operation could impact manatees. In order to reduce this impact, the standard state and Federal manatee protection conditions would be implemented. Included in these conditions are an education requirement, monitoring and avoidance of manatees. This avoidance includes a requirement to shutdown equipment should individuals come close to the equipment.

d. Fisheries. There would be no impact on fisheries in the Bay during dredging or placement.

e. Shellfish. There would be a loss of 1, 021 square feet of oyster beds. This impact would be offset by the relocation of the beds to an adjacent shallow-water area already inhabited by oysters.

f. Migratory Birds. There could be an adverse impact on migratory bird nesting in the DMMA's. This impact would be mitigated by the implementation of the Districts migratory bird protection plan during construction. This plan includes the voluntary avoidance of migratory bird nesting season (1 April through 30 August).

4.3.3 Social.

a. Historic Properties. Remote sensing surveys and archeological diver investigations were conducted to identify and evaluate anomalies according to National Register criteria. Placement of dredged material would have no affect on historic properties included in or eligible for inclusion in the National Register of Historic Places.

b. Recreation. There would be a minor disruption of fishing and bird watching during placement in the DMMA's.

c. Aesthetics. There would be relatively no impacts on aesthetics from this alternative because the work is conducted in areas typically used for that purpose. There would be an additional visual impact of heavy equipment adjacent to a residential area.

4.3.4 Economic.

a. Navigation. There would be a long-term major benefit from the increased vessel handling capabilities and safety for the cruise vessels moored adjacent to the turning basin. There would be a short-term disruption to commercial navigation from the presence and operation of dredging equipment.

b. Economics. There would be a medium, short-term benefit to the local economy from the sale of goods and services in support of the construction effort. There would be a long-term benefit on the economics of the area from the efficient and safe cargo vessel handling capacity of the channel.

4.3.5 Cumulative effects.

If this action was considered in conjunction with other similar projects and similar No Actions, there would be no cumulative adverse impact.

4.3.6 Unavoidable effects.

There would be a minor adverse increase in turbidity at the dredging site and disruption of commerce in the navigation channel from the presence and operation of dredging equipment. There would be a loss of

shallow-water habitat for fish, shellfish and benthic organisms.

4.3.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.4 CONSTRUCTION AND HOOKERS POINT PLACEMENT

4.4.1 Physical.

a. Water quality. There would be a localized increase in turbidity at the dredging site. This impact would meet State water quality standards. The effluent from the upland DMMA's would be relatively clean and meet NPDES standards for dredged material management..

4.4.2 Biological

a. Benthos. There would be a minor impact on benthic organisms within the dredging area. These organisms would be eliminated and moved to an upland area.

b. Manatees. The auxiliary vessels associated with the dredging operation could impact manatees. In order to reduce this impact, the standard state and Federal manatee protection conditions would be implemented. Included in these conditions are an education requirement, monitoring and avoidance of manatees. This avoidance includes a requirement to shutdown equipment should individuals come close to the equipment.

f. Fisheries. There would be no impact on fisheries in the Bay during dredging or placement.

g. Shellfish. There would be a loss of 1, 021 square feet of oyster beds. This impact would be offset by the relocation of the beds to an adjacent shallow-water area already inhabited by oysters

h. Migratory Birds. There would be no adverse impact on migratory birds from implementation of this alternative..

4.4.3 Social.

a. Historic Properties. Dredging activities will impact one potentially significant cultural resource in the channel. Archeological diver investigations are planned to identify and evaluate this anomaly according to National Register criteria. Placement of dredged material would have no affect on historic properties included in or eligible for inclusion in the National Register of Historic Places.

b. Recreation. There would be no adverse impact on recreation from dredging or placement.

c. Aesthetics. There would be relatively no impacts on aesthetics from this alternative because the work is conducted in areas typically used for that purpose. There would be an additional visual impact of heavy equipment adjacent to a residential area.

4.4.4 Economic.

a. Navigation. There would be a long-term major benefit from the increased vessel handling capabilities and safety for the cruise vessels moored adjacent to the turning basin. There would be a short-term disruption to commercial navigation from the presence and operation of dredging equipment.

b. Economics. There would be a medium, short-term benefit to the local economy from the sale of goods and services in support of the construction effort. There would be a long-term benefit on the economics of the area from the efficient and safe cargo vessel handling capacity of the channel.

4.4.5 Cumulative effects.

If this action was considered in conjunction with other similar projects and similar No Actions, there would be no cumulative adverse impact.

4.4.6 Unavoidable effects.

There would be a minor adverse increase in turbidity at the dredging site and disruption of commerce in the navigation channel from the presence and operation of dredging equipment.

4.4.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.5 CONSTRUCTION AND GARRISON CHANNEL PLACEMENT

4.5.1 Physical.

a. Water quality. There would be a minor short-term increase in turbidity at the dredging site. There would be a substantial increase in turbidity levels at the placement site. There would also be a long-term benefit to water quality of this area by providing better circulation and eliminating a hole where low levels of dissolved oxygen accumulate.

4.5.2 Biological

a. Benthos. The benthic organisms at the dredging site would be eliminated. This area would be rapidly recolonized by the organisms that can be moved by tidal flows from adjacent areas. Crustaceans and clams would take longer to re-enter the area. The benthic organisms would be covered and smothered by the placement of material in the littoral zone. The organisms in the dredged material would help recolonize the littoral area.

b. Manatees. The auxiliary vessels associated with the dredging operation could impact manatees. In order to reduce this impact, the standard State and Federal manatee protection conditions would be implemented. Included in these conditions are an education requirement, monitoring and avoidance of manatees. This avoidance includes a requirement to shutdown equipment should individuals come close to the equipment.

c. Fisheries. There would be a loss of shallow-water fish habitat from the shelf adjacent to the turning basin. However, there would be the creation of new habitat in the Garrison Channel and improved biological productivity from bringing the bottom elevation into the photic zone.

d. Shellfish. There would be a loss of 1, 021 square feet of oyster beds. This impact would be offset by the relocation of the beds to an adjacent shallow-water area already inhabited by oysters

e. Migratory Birds. There would be no impacts on migratory birds from this alternative.

4.5.3 Social.

a. Historic Properties. A remote sensing survey of Garrison Channel did not locate any potentially significant cultural resources. This determination is being coordinated with the SHPO.

b. Recreation. There would be a short-term minor impact on recreational navigation from the presence and operation of the dredging equipment in the navigation channel. There would also be a short-term impact on recreational fishing at the hole from the presence and operation of the dredging equipment.

c. Aesthetics. There would be a short-term degradation of the aesthetics of the navigation channel and the hole from the view from the presence and the noise from the operation of heavy equipment and a disruption of the seascape.

4.5.4 Economic.

a. Navigation. There would be a long-term major benefit from the continued maintenance on the navigable capacity. There would be a short-term disruption to commercial navigation from the presence and operation of dredging equipment.

b. Economics. There would be a medium, short-term benefit to the local economy from the sale

of goods and services in support of the construction effort. There would be a long-term benefit on the economics of the area from the maintenance of cargo handling capacity of the channel.

4.5.5 Cumulative effects.

If this action were considered in conjunction with other similar projects, there would be a substantial adverse.

4.5.6 Unavoidable effects.

There would be localized turbidity at both the dredging site and the placement area and disruption of commercial navigation in the channel. There would be a loss of shallow-water habitat for fish, shellfish and benthic organisms

4.5.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

5. CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS.

5.1 Scoping.

A scoping letters dated May 8, 1998, was sent to all interested parties including adjacent property owners, state and local governments and federal agencies.

5.2 State Clearinghouse Coordination.

The State Clearinghouse acknowledged receipt of the May 12, 1998 scoping letter and assigned a number to the file (SAI# FL9805110198C).

5.3 Pinellas County.

Pinellas County responded to the scoping letter by letter dated May 12, 1998, stating that any sandy material be placed on Pinellas County beaches.
RESPONSE: If sandy material is encountered and the State wishes the pay for the additional costs of placing the material on the beach above that considered economical, we would do this.

5.4 Hillsborough County EPC.

The Hillsborough County Planning Commission responded by letter dated May 20, 1998, stating its support of dredging projects provided State water quality standards are meet, the dredged material is placed in a manner that minimizes environmental and social impacts and is consistent with port and municipal planning. The Commission also recommended the project should demonstrate a substantial need, benefits, and include appropriate measures to minimize and mitigate adverse environmental impacts. The Commission also expressed concerns for the work being incompatible with the northeast shoreline of Seddon Island mitigation. It also expressed concerns for erosion and water quality from the alteration of the waterway. It recommended a seagrass survey of the project area.
RESPONSE: The dredging and placement of dredged material will meet State water quality standards. An Environmental Assessment will be prepared for the project and circulated in accordance with the NEPA implementing regulations. The alternative selected would be based on the most economical and environmentally sound design. The local sponsor for this project is the Port of Tampa. This modification was previously evaluated but never constructed because at the time it was not considered